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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/820,575	03/29/2001	Akira Hirai	1232-4697	2867

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EXAMINER

BARBER, THERESE

ART UNIT PAPER NUMBER

2882

DATE MAILED: 05/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/820,575

Applicant(s)

HIRAI, AKIRA

Examiner

Therese Barber

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 37-60 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 37-56 is/are allowed.
- 6) ☒ Claim(s) 57-60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Information Disclosure Statement

1. Form PTO-1449 submitted by the applicants was received on 17 July 2002. This form and the enclosed references address the objections to the Information Disclosure Statement in the Office Action that was mailed on 3 July 2002. The examiner signed form PTO-1449 on 15 November 2002.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 57-59 are rejected under 35 U.S.C. 102(b) as being anticipated by Griesmer et al. (USPN 5,379,335).

4. Regarding claims 57-59, Griesmer discloses an imaging system (2) with an irradiating unit adapted for irradiating an electromagnetic wave (4); an imaging sensing adapted for sensing an electromagnetic wave image of a subject (14; col. 5, lines 11-15); and a controller (26) adapted for controlling the irradiation instruction timing of the irradiating unit and the initialization start timing of the image sensing unit (col. 5, lines 9-17 and col. 6, lines 6-32).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 60 is rejected under 35 U.S.C. 103(a) as being unpatentable over Griesmer.

7. Regarding claim 60, official notice is hereby cited because it is well known in the art that computer storage is the holding of data in an electromagnetic form that can be readily accessed by a computer processor, wherein computer storage can be classified as either the primary or the secondary storage of data. The primary storage of data is in the random access memory (RAM) of the computer processor. The secondary storage of data is primarily the storage of data on hard disks, floppy discs, CD-ROMs, and other external devices. It would have been obvious to one having ordinary skill in the art at the time the invention was made that the specific steps of executing a method could be stored on a computer readable storage medium. Accordingly, the motivation is to utilize the capabilities of the computer with its different storage mediums, in order, to acquire, to retrieve, and to process information accurately and quickly.

Allowable Subject Matter

8. Claims 37-56 are allowed.

9. Regarding claims 37-46, the claims are allowable over the prior art of record because although the prior art of record discloses an irradiation imaging system with an image sensing unit (a detector) and a controller, the prior art of record fails to teach or to reasonably suggest

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wherein the controller generates a first signal that allows the irradiating unit to start the irradiation of a subject and wherein the controller generates a second signal that starts the image sensing unit, in order to create an overlap between the first and the second signals, whereby the first time period is the timing delay, determined from the short delay between the first signal outputted from the controller and the initialization of the irradiating unit, and whereby the second time period is the timing delay, determined from the short delay between the second signal outputted from the controller and the initialization of the image sensing unit, in order to regulate the irradiation timing of the imaging apparatus, as claimed.

10. Regarding claims 47-56, the claims are allowable over the prior art of record because although the prior art of record discloses an irradiation imaging system with an image sensing unit (a detector) and a controller, the prior art of record fails to teach or to reasonably suggest the specific steps for controlling the irradiation timing of the imaging system wherein the controller generates a first signal that allows the irradiating unit to start the irradiation of a subject and wherein the controller generates a second signal that starts the image sensing unit, in order to create an overlap between the first and the second signals, whereby the first time period is the timing delay, determined from the short delay between the first signal outputted from the controller and the initialization of the irradiating unit, and whereby the second time period is the timing delay, determined from the short delay between the second signal outputted from the controller and the initialization of the image sensing unit, in order to regulate the irradiation timing of the imaging apparatus, as claimed.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tamura et al. (USP Application Publication US 2002/0001366 A1) discloses an imaging apparatus, imaging method, and computer-readable storage medium, which stores the processing steps in executing the method, which are used in an imaging apparatus or an imaging system for performing radiation imaging of an object using a grid. However, the reference lacks the specifics to the imaging apparatus having a controller generating a signal so as to overlap a first period and a second period based on information obtained from the electromagnetic wave reflected from a subject, as set forth in the claimed combination.


Yamane et al. (USPN 6,330,303) discloses an x-ray imaging apparatus for converting an X-ray image of a specimen into electrical image signals according to the quantity of X-rays that have passed through the specimen, wherein the x-ray imaging apparatus is performing this conversion utilizing real-time imaging and operating a high speed. However, the reference lacks the specifics to the imaging apparatus having a controller generating a signal so as to overlap a first period and a second period based on information obtained from the electromagnetic wave reflected from a subject, as set forth in the claimed combination.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Therese Barber whose telephone number is (703) 306-0205. The examiner can normally be reached on Monday to Friday from 8:30 a.m. to 6:00 p.m..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (703) 305-3492. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-4857 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4900.

tb 
May 3, 2003



DAVID V. BRUCE
PRIMARY EXAMINER